

03-05-07

IFW

Customer No. 22,869
Appl. No. 10/810,311
March 1, 2007

Atty. Docket No. 093/030
Information Disclosure Statement



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of: Ramkumar Mandalam et al.

Serial No.: 10/810,311

Filing Date: March 26, 2004

Attorney Docket: 093/030

For: NEW PROTOCOLS FOR MAKING
HEPATOCYTES FROM EMBRYONIC
STEM CELLS

Art Unit: 1632

Examiner: Thaian N. TON

Confirmation No. 8003

INFORMATION DISCLOSURE STATEMENT

MAIL STOP AMENDMENT

Commissioner for Patents
P. O. Box 1450
Arlington, VA 22313-1450

Dear Sir:

The information listed in the accompanying form PTO/SB/08 and provided herewith may be material to examination of this application and is submitted in compliance with the duty of disclosure under 37 C.F.R. § 1.56. The Examiner is requested to make this information of record in the application.

This application is a continuation-in-part of USSN 10/087,142 (Docket No. 093/005), filed March 1, 2002, allowed, which is a continuation-in-part of USSN 10/001,267 (Docket No. 093/004), filed October 31, 2001, pending, which is a continuation-in-part of USSN 09/872,182

Customer No. 22,869
Appl. No. 10/810,311
March 1, 2007

Atty. Docket No. 093/030
Information Disclosure Statement

(Docket No. 093/003), filed May 31, 2001, now US 6,506,574 B1, and PCT/US01/13471, filed April 26, 2001, which both claim priority to USSN 60/200,095, filed April 27, 2000, and relies on these applications for its earlier priority date.

Pursuant to 37 C.F.R. § 1.98(d), Applicants are not submitting copies of the documents submitted with the IDS's in these three US parent applications. Copies of twenty-three (23) newly-cited non-U.S. patent documents are included in this filing.

This Information Disclosure Statement is not to be construed as a representation that a full search for relevant information has been made, that all relevant information has been found, or that the information provided with this Statement is considered to be material to patentability of the claimed invention as defined under 37 C.F.R. § 1.56(b).

This Information Disclosure Statement is being filed before the first Office Action on the merits, therefore we believe no fee is due. Should any other fees be required for further consideration of the application and the enclosed information, the Commissioner is hereby authorized to charge such fees (or credit any overpayment) to Deposit Account 07-1139 (Ref. 093/030P).

Respectfully submitted,



Bart W. Wise
Registration No. 49,029

GERON CORPORATION
230 Constitution Drive
Menlo Park, CA 94025
Telephone: (650) 473-7753
Fax: (650) 473-8654
March 1, 2007

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

8

Complete if Known

Application Number	10/810,311
Filing Date	March 26, 2004
First Named Inventor	Ramkumar MANDALAM
Art Unit	1632
Examiner Name	Thaian N. TON
Attorney Docket Number	093/030

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where relevant passages or relevant figures appear
		Number-Kind-Code			
		5,030,105	07-09-1991	Kuri-Harcuch et al.	
		5,532,156	07-02-1996	Talbot et al.	
		5,559,022	09-24-1996	Naughton et al.	
		5,576,207	11-19-1996	Reid et al.	
		5,763,255	06-09-1998	Swiderek et al.	
		5,869,243	02-09-1999	Jauregui et al.	
		6,017,760	01-25-2000	Jauregui et al.	
		6,129,911	10-10-2000	Faris	
	+	6,458,589 B1	10-01-2002	Rambhatla et al.	
	+	6,506,574 B1	01-14-2003	Rambhatla et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where relevant passages or relevant figures appear	T
		Country Code-Number-Kind-Code				
		EP 0 827 742 A1	03-11-1998	Vrije Universiteit Brussel		
		EP 0 827 743 A1	03-11-1998	Vrije Universiteit Brussel		
		EP 0 953 633 A1	11-03-1999	Livercell LLC		
		WO 91/15573 A1	10-17-1991	Southwest Foundation for Biomedical Research		
		WO 95/12665 A1	05-11-1995	Diacrin, Inc.		
		WO 97/47307 A1	12-18-1997	The UAB Res. Foundation		
		WO 97/47734 A1	12-18-1997	The Regents of UC		
		WO 99/23885 A1	05-20-1999	The Salk Institute for Biological Studies		
		WO 99/37150 A1	07-29-1999	Sloan Kettering Inst. For Cancer Res.		
		WO 00/03001 A1	01-20-2000	Rhode Island Hospital		
		WO 00/18239 A1	04-06-2000	Univ. of Nebraska Board of Regents et al.		
		WO 00/22098 A1	04-20-2000	Geron Bio-Med Ltd.		
		WO 00/43498 A2	07-27-2000	Univ. of North Carolina at Chapel Hill		
		WO 00/50048 A2	08-31-2000	Univ. of Pittsburgh		

Examiner
Signature

Date

Considered

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/810,311
				Filing Date	March 26, 2004
				First Named Inventor	Ramkumar MANDALAM
				Art Unit	1632
				Examiner Name	Thaian N. TON
Sheet	2	of	8	Attorney Docket Number	093/030

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind-Code	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where relevant passages or relevant figures appear	T
		WO 01/39784 A1	06-07-2001	The General Hospital Corp.		
		WO 01/49113 A1	07-12-2001	Univ. Massachusetts		
		WO 01/62901 A2	08-30-2001	Artecel Sciences, Inc.		
	+1	WO 01/81549 A2,A3	11-01-2001	Geron Corporation		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Trans
		ADAMS, R. et al., "Effective cryopreservation and long-term storage of primary human hepatocytes with recovery of viability, differentiation, and replicative potential," <i>Cell Transplantation</i> 4(6):579-86 (1995).	
		AGELLI, M. et al., "Putative liver progenitor cells: conditions for long-term survival in culture," <i>Histochemical J.</i> 29:205-17 (1997).	
	+2	ALBERTS, B. et al., <i>Molecular Biology of the Cell</i> , Garland Publishing, Inc., New York, pp. 66, 85, 347 (1989).	
		ALISON, M., "Liver stem cells: a two compartment system," <i>Curr. Op. Cell Biol.</i> 10:710-15 (1998).	
		ATCC website info. For Chang liver cells, ATCC # CCL-1.	
		BARIBAULT, H. & MARCEAU, N., "Dexamethasone and dimethylsulfoxide as distinct regulators of growth and differentiation of cultured suckling rat hepatocytes," <i>J. Cell Physiol.</i> 129(1):77-84 (1986).	
		BLOCK, G. et al., "Population expansion, clonal growth, and specific differentiation patterns in primary cultures of hepatocytes induced by HGF/SF, EGF and TGF α in a chemically defined (HGM) medium," <i>J. Cell Biol.</i> 132(6):1133-49 (1996).	
		BLOUIN, M. et al., "Specialization switch in differentiating embryonic rat liver progenitor cells in response to sodium butyrate," <i>Exp. Cell Res.</i> 217:22-30 (1995).	
	+3	BODNAR, A. et al., "Extension of life-span by introduction of telomerase into normal human cells," <i>Science</i> 279:349-52 (1998).	
		BRILL, S. et al., "Expansion conditions for early hepatic progenitor cells from embryonal and neonatal rat livers," <i>Dig Diseases & Sci.</i> 44(2):364-71 (1999).	
		BUOMMINO, E. et al., "Sodium butyrate/retinoic acid costimulation induces apoptosis-independent growth arrest and cell differentiation in normal and ras-transformed seminal vesicle epithelial cells unresponsive to retinoic acid," <i>J. Mol. Endocrinol.</i> 24(1):83-94 (2000).	
		CHEN, H-L. et al., "Long-term culture of hepatocytes from human adults," <i>J. Biomed. Sci.</i> 5:435-40 (1998).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known		
				Application Number		10/810,311
				Filing Date		March 26, 2004
				First Named Inventor		Ramkumar MANDALAM
				Art Unit		1632
				Examiner Name		Thaian N. TON
Sheet	3	of	8	Attorney Docket Number		093/030

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Trans
		CHEN, W. et al., "Reactivation of silenced, virally transduced genes by inhibitors of histone deacetylase," <i>Proc. Natl. Acad. Sci. USA</i> 94:5798-803 (1997).	
	+4	CHERNY, R. et al., "Strategies for the isolation and characterization of bovine embryonic stem cells," <i>Reprod. Fertil. Dev.</i> 6:569-75 (1994).	
	+5	CHINZEI, R. et al., "Embryoid-body cells derived from a mouse embryonic stem cell line show differentiation into functional hepatocytes," <i>Hepatology</i> 36:22-29 (2002).	
	+6	CHOI, D. et al., "Differentiation of embryonic stem cells into hepatocytes," <i>Tissue Eng.</i> 6(6):675 Abstract O-43 (2000).	
		COGHLAN, A., "Highly Cultured," <i>New Scientist</i> (2000).	
		COLEMAN, W. et al., "Development of dexamethasone-inducible tyrosine aminotransferase activity in WB-F344 rat liver epithelial stemlike cells cultured in the presence of sodium butyrate," <i>J. Cell Physiol.</i> 161(3):463-69 (1994).	
		DAVIS, M. et al., "Involvement of G α 2 in sodium butyrate-induced erythroblastic differentiation of K562 cells," <i>Biochem. J.</i> 346:455-61 (2000).	
		DEVEREUX, T. et al., "DNA methylation analysis of the promoter region of the human telomerase reverse transcriptase (<i>hTERT</i>) gene," <i>Cancer Res.</i> 59:6087-90 (1999).	
		ENAT, R. et al., "Hepatocyte proliferation <i>in vitro</i> : Its dependence on the use of serum-free hormonally defined medium and substrata of extracellular matrix," <i>Proc. Natl. Acad. Sci. USA</i> 81:1411-15 (1984).	
		ENGELMANN, G. et al., "Effect of sodium butyrate on primary cultures of adult rat hepatocytes," <i>In Vitro Cell. Dev. Biol.</i> 23(2):86-92 (1987).	
		FALASCA, L. et al., "The effect of retinoic acid on the re-establishment of differentiated hepatocyte phenotype in primary culture," <i>Cell Tissue Res.</i> 293:337-47 (1998).	
		GERMAIN, L. et al., "Biliary epithelial and hepatocytic cell lineage relationships in embryonic rat liver as determined by the differential expression of cytokeratins, α -fetoprotein, albumin, and cell surface-exposed components" <i>Cancer Res.</i> 48:4909-18 (1988).	
		GERMAIN, L. et al., "Promotion of growth and differentiation of rat ductular oval cells in primary culture," <i>Cancer Res.</i> 48(2):368-78 (1988).	
		GILLENWATER, A. et al., "Effects of sodium butyrate on growth, differentiation, and apoptosis in head and neck squamous carcinoma cell lines," <i>Head Neck</i> 22(3):247-56 (2000).	
		GLADHAUG, I. et al., "Effects of butyrate on epidermal growth factor receptor binding, morphology, and DNA synthesis in cultured rat hepatocytes," <i>Cancer Res.</i> 48(22):6560-64 (1988).	
		GRAHAM, K. et al., "Sodium butyrate induces differentiation in breast cancer cell lines expressing the estrogen receptor," <i>J. Cell Physiol.</i> 136(1):63-71 (1988).	
	+7	GRANÉRUS, M. & ENGSTRÖM, W., "Growth factors and apoptosis," <i>Cell Prolif.</i> 29:309-14 (1996).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449/PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Application Number	10/810,311	
			Filing Date	March 26, 2004	
			First Named Inventor	Ramkumar MANDALAM	
			Art Unit	1632	
			Examiner Name	Thaian N. TON	
Sheet	4	of	8	Attorney Docket Number	093/030

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		Trans
		GRISHAM, J. et al., "Liver stem cells," <i>Stem Cells</i> pp. 233-282 (1997).		
		GUIXIANG, T. et al., "Different effects of cyclic AMP and butyrate on eosinophilic differentiation, apoptosis and bcl-2 expression of a human eosinophilic leukemia cell line, EoL-1," <i>Hematol Oncol.</i> 14(4):181-92 (1996).		
	+8	HAMAZAKI, T. et al., "Hepatic maturation in differentiating embryonic stem cells in vitro," <i>FEBS Lett.</i> 497(1):15-19 (2001).		
	+9	HAYASHI, Y. et al., "Liver enriched transcription factors and differentiation of hepatocellular carcinoma," <i>Meth. Pathol.</i> 52:19-24 (1999).		
		HOSHI, H. et al., "Direct analysis of growth factor requirements for isolated human fetal hepatocytes," <i>In Vitro Cell. Dev. Biol.</i> 23(10):723-32 (1987).		
	+10	IMAMURA, T. et al., "Embryonic stem cell-derived embryonic bodies in three-dimensional culture system form hepatocyte-like cells <i>in Vitro</i> and <i>in Vivo</i> ," <i>Tissue Eng.</i> 10(11/12):1716-24 (2004).		
	+11	ITSKOVITZ-ELDOR, J. et al., "Differentiation of human embryonic stem cells into embryoid bodies comprising the three embryonic germ layers," <i>Molec. Med.</i> 6:88-95 (2000).		
		JENG, J. et al., "Effects of butyrate and propionate on the adhesion, growth, cell cycle kinetics, and protein synthesis of cultured human gingival fibroblasts," <i>J. Periodontol.</i> 70(12):1435-42 (1999).		
		KAMITANI, H., et al., "Regulation of 12-lipoxygenase in rat intestinal epithelial cells during differentiation and apoptosis induced by sodium butyrate," <i>Arch. Biochem. Biophys.</i> 368(1):45-55 (1999).		
		KANEKO, Y. et al., "Alteration of differentiation state of human hepatocytes cultured with novobiocin and butyrate," <i>Cancer Res.</i> 50:3101-5 (1990).		
		KOBAYASHI, N. et al., "Establishment of a highly differentiated immortalized human hepatocyte cell line as a source of hepatic function in the bioartificial liver," <i>Transplant. Proc.</i> 32:237-41 (2000).		
		KONO, Y. et al., "Extended primary culture of human hepatocytes in a collagen gel sandwich system," <i>In Vitro Cell. Dev. Biol.- Animal</i> 33:467-72 (1997).		
		KOSUGI, H. et al., "Histone deacetylase inhibitors are the potent inducer/enhancer of differentiation in acute myeloid leukemia: a new approach to anti-leukemia therapy," <i>Leukemia</i> 13:1316-24 (1999).		
		KOUTSOVELKIDIS, I. et al., "Butyrate inhibits and <i>Escherichia coli</i> -derived mitogen(s) stimulate DNA synthesis in human hepatocytes <i>in vitro</i> ," <i>Prep. Biochem. Biotechnol.</i> 29(2):121-38 (1999).		
	+12	KUBO, A. et al., "Development of definitive endoderm from embryonic stem cells in culture," <i>Development</i> 131:1651-62 (2003).		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449/PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Application Number	10/810,311	
			Filing Date	March 26, 2004	
			First Named Inventor	Ramkumar MANDALAM	
			Art Unit	1632	
			Examiner Name	Thaian N. TON	
Sheet	5	of	8	Attorney Docket Number	093/030

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Trans
	+13	LAVON, N. & BENVENISTY, N., "Study of hepatocyte differentiation using embryonic stem cells," <i>J. Cell. Biochem.</i> 96:1193-1202 (2005).	
	+14	LAVON, N. et al., "Differentiation and isolation of hepatic-like cells from human embryonic stem cells," <i>Differentiation</i> 72:230-8 (2004).	
		LÁZARO, C. et al., "Generation of hepatocytes from oval cell precursors in culture," <i>Cancer Res.</i> 58:5514-22 (1998).	
		LEE, J-H. et al., "Histone deacetylase activity is required for embryonic stem cell differentiation," <i>Genesis</i> 38:32-8 (2004).	
		LI, J. et al., "Mammalian hepatocyte differentiation requires the transcription factor HNF-4 α ," <i>Genes & Dev.</i> 14:464-474 (2000).	
		MASUDA et al., "Up-regulation of E-cadherin and β -catenin in human hepatocellular carcinoma cell lines by sodium butyrate and interferon- α ," <i>In Vitro Cell. Dev. Biol. - Animal</i> 36:387-94 (2000).	
		MATSUI, T. & TAKETO, A., "Induction of catecholamine synthesis in human neuroblastoma cells by replication inhibitors and sodium butyrate," <i>Brain Res.</i> 843:112-17 (1999).	
		McBAIN, J. et al., "Apoptotic death in adenocarcinoma cell lines induced by butyrate and other histone deacetylase inhibitors," <i>Biochem Pharm.</i> 53:1357-68 (1997).	
		MICHALOPOULOS, G. et al., "Morphogenetic events in mixed cultures of rat hepatocytes and nonparenchymal cells maintained in biological matrices in the presence of hepatocyte growth factor and epidermal growth factor," <i>Hepatology</i> 29(1):90-100 (1999).	
		MITAKA, T. et al., "Redifferentiation of proliferated rat hepatocytes cultured in L15 medium supplemented with EGF and DMSO," <i>In Vitro Cell Dev. Biol.</i> 29A:714-722 (1993).	
		MITAKA, T., "The current status of primary hepatocyte culture," <i>Int. J. Exp. Path.</i> 79:393-409 (1998).	
		MOREADITH, R. & RADFORD, N., "Gene targeting in embryonic stem cells: the new physiology and metabolism," <i>J. Mol. Med.</i> 75:208-16 (1997).	
		NIKI, T. et al., "A histone deacetylase inhibitor, trichostatin A, suppresses myofibroblastic differentiation of rat hepatic stellate cells in primary culture," <i>Hepatology</i> 29(3):858-867 (1999).	
		PACK, R. et al., "Isolation, biochemical characterization, long-term culture, and pheotype modulation of oval cells from carcinogen-fed rats," <i>Exp Cell Res.</i> 204(2):198-209 (1993).	
		PAGAN, R. et al., "Effects of growth and differentiation factors on the epithelial-mesenchymal transition in cultured neonatal rat hepatocytes," <i>J. Hepatol.</i> 31:859-904 (1999).	
	+15	PEASE, S. et al., "Isolation of embryonic stem (ES) cells in media supplemented with recombinant leukemia inhibitory factor (LIF)," <i>Dev. Biol.</i> 141:344-52 (1990).	
		PERA et al., "," <i>J. Cell Sci.</i> 113:5-10 (2000).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449/PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Application Number	10/810,311	
			Filing Date	March 26, 2004	
			First Named Inventor	Ramkumar MANDALAM	
			Art Unit	1632	
			Examiner Name	Thaian N. TON	
Sheet	6	of	8	Attorney Docket Number	093/030

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		Trans
		PEREZ, R. et al., "Sodium butyrate upregulates Kupffer cell PGE ₂ production and modulates immune function," <i>J. Surg. Res.</i> 78(1):1-6 (1998).		
		PERRINE, S. et al., "A short-term trial of butyrate to stimulate fetal-globin-gene expression in the beta-globin disorders," <i>N. Engl. J. Med.</i> 328(2):81-86 (1993).		
		PERRINE, S. et al., "Butyrate derivatives. New agents for stimulating fetal globin production in the β -globin disorders," <i>Am. J. Pediatr. Hematol. Oncol.</i> 16(1):67-71 (1994).		
	+16	RAMBHATLA, L. et al., "Generation of hepatocyte-like cells from human embryonic stem cells," <i>Cell Transplantation</i> 12:1-11 (2003).		
	+17	RATHJEN, P. et al., "Properties and uses of embryonic stem cells: prospects for application to human biology and gene therapy," <i>Reprod. Fertil. Dev.</i> 10:31-47 (1998).		
		REYNOLDS, S. et al., "Differentiation-inducing effect of retinoic acid, difluoromethylornithine, sodium butyrate and sodium suramin in human colon cancer cells," <i>Cancer Lett.</i> 134(1):53-60 (1998).		
		RIVERO, J. & ADUNYAH, S., "Sodium butyrate stimulates PKC activation and induces differential expression of certain PKC isoforms during erythroid differentiation," <i>Biochem. Biophys. Res. Comm.</i> 248(3):664-68 (1998).		
		ROCCHI, P. et al., "Effect of butyrate analogues on proliferation and differentiation in human neuroblastoma cell lines," <i>Anticancer Res.</i> 18:1099-103 (1998).		
		ROGLER, L. "Selective bipotential differentiation of mouse embryonic hepatoblasts <i>in vitro</i> ," <i>Am. J. Pathol.</i> 150(2):591-602 (1997).		
	+18	RUHNKE, M. et al., "Long-term culture and differentiation of rat embryonic stem cell-like cells into neuronal, glial, endothelial, and hepatic lineages," <i>Stem Cells</i> 21:428-36 (2003).		
		RUNGE, D. et al., "STAT 1 α /1 β , STAT 3 and STAT 5: Expression and Association with c-MET and EGF-Receptor in Long-Term Cultures of Human Hepatocytes," <i>Biochem. Biophys. Res. Comm.</i> 265:376-81 (1999).		
		SAITO, H. et al., "Changes of antigen expression on human hepatoma cell lines caused by sodium butyrate, a differentiation inducer," <i>J. Gastroenterol.</i> 29:733 (1994).		
		SAITO, H. et al., "Differentiating effect of sodium butyrate on human hepatoma cell lines PLC/PRF/5, HCC-M and HCC-T," <i>Int. J. Cancer</i> 48(2):291-96 (1991).		
		SAITO, H. et al., "Effect of dexamethasone, dimethylsulfoxide and sodium butyrate on a human hepatoma cell line PLC/PRF/5," <i>Cancer Biochem. Biophys.</i> 13:75-84 (1992).		
		SÁNCHEZ, A. et al., "Transforming growth factor- β (TGF- β) and EGF promote cord-like structures that indicate terminal differentiation of fetal hepatocytes in primary culture," <i>Exp. Cell Res.</i> 242:27-37 (1998).		
	+19	SCHULDINER, M. et al., "Effects of eight growth factors on the differentiation of cells derived from human embryonic stem cells," <i>PNAS</i> 97(21):11307-12 (2000).		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449/PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Application Number	10/810,311	
			Filing Date	March 26, 2004	
			First Named Inventor	Ramkumar MANDALAM	
			Art Unit	1632	
			Examiner Name	Thaian N. TON	
Sheet	7	of	8	Attorney Docket Number	093/030

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		Trans
		SCHULTZ, R. et al., "Reprogramming of gene expression during preimplantation development," <i>J. Exp. Zool. (Mol. Dev. Evol.)</i> 285:276-82 (1999).		
	+20	SHIRAHASHI, H. et al., "Differentiation of human and mouse embryonic stem cells along a hepatocyte lineage," <i>Cell Transplantation</i> 13:197-211 (2004).		
		SIAVOSHIAN, S. et al., "Butyrate and trichostatin A effects on the proliferation/differentiation of human intestinal epithelial cells: induction of cyclin D3 and p21 expression," <i>Gut</i> 46(4):507-14 (2000).		
		SIMON, B. et al., "Transient transcriptional activation of gastrin during sodium butyrate-induced differentiation of islet cells," <i>Regul. Pept.</i> 70:143-48 (1997).		
		STAECKER, J. et al., "Sodium butyrate preserves aspects of the differentiated phenotype of normal adult rat hepatocytes in culture," <i>J. Cell. Physiol.</i> 135(3):367-76 (1988).		
		STAECKER, J. et al., "Stimulation of DNA synthesis in primary cultures of adult rat hepatocytes by sodium butyrate," <i>Biochem. Biophys. Res. Comm.</i> 147(1):78-85 (1987).		
		STAECKER, J. & PITOT, H., "The effect of sodium butyrate on tyrosine aminotransferase induction in primary cultures of normal adult rat hepatocytes," <i>Arch. Biochem. Biophys.</i> 261(2):291-98 (1988).		
		STRAIN, A., "Ex vivo liver cell morphogenesis: one step nearer to the bioartificial liver," <i>Hepatology</i> 29(1):288-90 (1999).		
		SUN, S. et al., "Altered phospholipid metabolism in sodium butyrate-induced differentiation of C6 glioma cells," <i>Lipids</i> 32(3):273-82 (1997).		
		TAMAGAWA, K. et al., "Proanthocyanidins from barley bran potentiate retinoic acid-induced granulocytic and sodium butyrate-induced monocytic differentiation of HL60 cells," <i>Biosci. Biotechnol. Biochem.</i> 62(8):1483-87 (1998).		
		TANAKA, T. et al., "Adenovirus-mediated prodrug gene therapy for carcinoembryonic antigen-producing human gastric carcinoma cells <i>in vitro</i> ," <i>Cancer Res.</i> 56(6):1341-45 (1996).		
		TATENO, C. et al., "Growth and differentiation of adult rat hepatocytes regulated by the interaction between parenchymal and non-parenchymal liver cells," <i>J. Gast. Hepatol.</i> 13(Suppl.):S83-S92 (1998).		
		TATENO, C. et al., "Growth potential and differentiation capacity of adult rat hepatocytes <i>in vitro</i> ," <i>Wound Rep. Reg</i> 7(1):36-44 (1999).		
	+21	THOMSON, et al., "Embryonic stem cell lines derived from human blastocysts," <i>Science</i> 282:1145-7 (1998).		
	+22	THOMSON, J. et al., "Neural differentiation of rhesus embryonic stem cells," <i>APMIS</i> 106:149-56 (1998).		
	+23	TROUNSON, A. & PERA, M., "Potential benefits of cell cloning for human medicine," <i>Reprod. Fertil. Dev.</i> 10:121-25 (1998).		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known		
				Application Number		10/810,311
				Filing Date		March 26, 2004
				First Named Inventor		Ramkumar MANDALAM
				Art Unit		1632
				Examiner Name		Thaian N. TON
Sheet	8	of	8	Attorney Docket Number		093/030

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Trans
		VERFAILLIE, C. et al., "Stem Cells: Hype and Reality," <i>Hematol. (Am. Soc. Hematol. Educ. Prog.)</i> , pp. 369-91 (2002).	
		WANG, G. et al., "Transforming growth factor- β 1 acts cooperatively with sodium <i>n</i> -butyrate to induce differentiation of normal human keratinocytes," <i>Exp. Cell Res.</i> 198(1):27-30 (1992).	
		WATKINS, S. et al., "Butyric acid and tributyrin induce apoptosis in human hepatic tumour cells," <i>J. Dairy Res.</i> 66(4):559-67 (1999).	
		Webster's Online Dictionary, definition for "HeLa cells," one page.	
		YABUSHITA, H. & SARTORELLI, A., "Effects of sodium butyrate, dimethylsulfoxide and dibutyryl cAMP on the poorly differentiated ovarian adenocarcinoma cell line AMOC-2," <i>Oncol. Res.</i> 5(4-5):173-82 (1993).	
		YAMADA, K. et al., "Effects of butyrate on cell cycle progression and polyploidization of various types of mammalian cells," <i>Biosci. Biotechnol. Biochem.</i> 56(8):1261-65 (1992).	
		YOON, J-H. et al., "Augmentation of Urea-synthetic Capacity by Inhibition of Nitric Oxide Synthesis in Butyrate-Induced Differentiated Human Hepatocytes," <i>FEBS Lett.</i> 474:175-78 (2000).	
		YOON, J-H. et al., "Development of a non-transformed human liver cell line with differentiated-hepatocyte and urea-synthetic functions: applicable for bioartificial liver," <i>Int. J. Artifical Organs</i> 22(11):769-77 (1999).	
		YOSHIZAWA, T. et al., "Dimethylsulfoxide maintains intercellular communication by preserving the gap junctional protein connexin32 in primary cultured hepatocyte doublets from rats," <i>J. Gastroenterol. Hepatol.</i> 12:325-30 (1997).	
		ZVIBEL, I. et al., "Phenotypic characterization of rat hepatoma cell lines and lineage-specific regulation of gene expression by differentiation agents," <i>Differentiation</i> 63:215-23 (1998).	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--